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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,535	10/03/2003	Hideaki Watanabe	8038-1044	9332

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EXAMINER

DI GRAZIO, JEANNE A

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/677,535

Applicant(s)

WATANABE, HIDEAKI

Examiner

Jeanne A. Di Grazio

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/29/2005.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

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DETAILED ACTION

Claims

Claims 1-20 are pending per Amendment of September 1, 2005. Claims 1, 3, 6, 8, 10, 11, 15, 17 and 18 have been amended per said Amendment with claim 20 being newly added.

Priority

Priority to Japanese Patent Application No. 2002-291199 (Oct. 3, 2002) is claimed.

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (APA Figures 11-21 identified as PRIOR ART) in view of United States Patent 6,512,558 B2 (to Kim) and further in view of United States Patent 6,532,147 B1 (to Christ, Jr.).

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As to claim 1 (amended) and 20 (new), Applicant's Admitted Prior Art (APA) discloses that the conventional LCD device has a backlight unit and panel unit formed as an integrated LCD unit (Specification at page 8, lines 9-12). APA also discloses that the panel unit includes a driver IC for driving the LCD panel (Specification at page 1, lines 15-17) and a backlight unit that generally includes a lens sheet, optical guide plate and reflection sheet which are arranged in said order as viewed from the front side toward the rear side of the backlight unit (Specification at page 2, lines 20-24)(all of these elements as equivalent to Applicant's "a panel unit including a LCD panel and a driver circuit for driving said LCD panel ... a backlight including a plurality of optical components consecutively mounted on said LCD panel.").

APA does not appear to explicitly specify a housing for receiving therein said panel unit and said backlight, said housing including a front housing member formed as a frame and at least one rear housing member covering lateral and rear sides of said backlight and said panel unit as a whole, said front housing member and said rear housing member being coupled together via a coupling structure.

However, turning to Kim, Kim teaches and discloses a flat display module housing assembly and shows in Figure 6 a front housing member formed as a frame (100), and at least one rear housing member (200) in the shape of a box that upon coupling with the front housing member (100) covers lateral and rear sides of both a backlight 1a and an LCD panel 1b – collectively taken as reference item 1 which is a flat display module. Front (100) and rear (200) housing members are coupled together via positioning parts (220), fastening bosses (230), screw holes (231), fastening holes (130) and fastening members (320).

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Kim teaches that the flat display module housing assembly provides the following benefits: (1) it provides for direct assembly of a display module to a system display housing without the use of a case (thereby reducing the number of parts required for assembly), (2) weight and thickness of the overall assembled product can be reduced thus enabling a light-weight and thin display system and (3) workability is improved thereby reducing cost (Column 4, Lines 55-62).

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystal display devices at the time the invention was made to modify APA in view of Kim for: (1) direct assembly of a display module to a system display housing without the use of a case (thereby reducing the number of parts required for assembly), (2) reduced weight and thickness of the overall assembled product thus enabling a light-weight and thin display system and (3) improved workability thereby reducing cost (Column 4, Lines 55-62).

APA does not appear to explicitly specify that front housing member and rear housing member are hingedly coupled together.

However, Christ, Jr., teaches and discloses a flexible monitor / display on mobile device in which at least Figure 3a shows a display screen (24) coupled to a base (22) by a plurality of hinges.

It would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify APA in view of Christ, Jr., to provide flexibility of the display screen in relation to the base (Abstract and entire patent).

Please also note that upon completion of the device, the backlight sides and bottom are covered.

Thus, claims 1 and 20 are rejected.

As to claim 2, APA discloses that the LCD module may further include an interface IC for transferring data between the driver IC and a personal computer and a power circuit for supplying electric power to a lamp in a backlight unit (Specification at pages 1 and 2, lines 23-25 and 1-4 respectively).

Thus, claim 2 is rejected.

As to claim 3 (amended), APA discloses that the panel unit and backlight are a combination and received in a housing as a unified structure (Specification at page 2, lines 1-6).

Please also note that Christ, Jr., shows that the screen and base are rotatable with respect to each other (See also Figures 7-12).

Thus, claim 3 is rejected.

As to claim 4, Kim (Figure 6) discloses a plurality of coupling members on the rear housing member for coupling to the front housing member.

Thus, claim 4 is rejected.

As to claim 5, Kim illustrates (Figure 6) "L-shaped" brackets (220) on the rear housing member for coupling to the front housing member. This is considered as a coupling member bent substantially at a right angle.

Thus, claim 5 is rejected.

As to claim 6 (amended), the coupling members of Kim (Figure 6) are integrated into the housing assembly.

Thus, claim 6 is rejected.

As to claim 7, LCD coupling parts may be made of either plastic or metal depending upon manufacturing needs and convenience.

Thus, claim 7 is rejected.

As to claim 8 (amended), Kim illustrates that one of the coupling members is in the shape of a bracket (flexible joint)(See Figure 6).

As noted, Christ, Jr., includes a plurality of hinges that presumably have reduced central portions.

Thus, claim 8 is rejected.

As to claim 9, one of the coupling members comprises screws (Figure 6).

Thus, claim 9 is rejected.

As to claims 10-12 (10 and 11 amended), the coupling members of Kim have various configurations as noted.

Thus, claims 10-12 are rejected.

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As to claims 13-14, Figure 5A of Kim shows the front housing (100) with a plurality of fasteners (ribs) that when combined with the rear housing (200) both housings mutually align with each other. The completed Kim device has housings aligned with each other.

Thus, claims 13-14 are rejected.

As to claims 15-19 (15, 17 and 18 amended), Applicant's recited method steps for fabricating a liquid crystal display device would have been obvious to one of ordinary skill in the art of liquid crystal display devices in view of structures as taught and disclosed by APA in view of Kim and Christ, Jr., for: (1) direct assembly of a display module to a system display housing without the use of a case (thereby reducing the number of parts required for assembly), (2) reduced weight and thickness of the overall assembled product thus enabling a light-weight and thin display system and (3) improved workability thereby reducing cost (Column 4, Lines 55-62) and also for flexibility as noted.

Thus, claims 15-19 are rejected.

Response to Arguments

Applicant's arguments with respect to said claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. United States Patent 5,777,704 (to Selker)(teaching that conventional Laptops, LCDs and Display Lighting Devices conventionally incorporate hinges)(Column 2, Lines 1-10).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanne A. Di Grazio whose telephone number is (571)272-2289. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeanne Andrea Di Grazio
Patent Examiner
Art Unit 2871

JDG


ANDREW SCHECHTER
PRIMARY EXAMINER